UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,326	09/26/2003	Dewey McKinley Sims JR.	081276-9137-00	8405

34044 7590 08/10/2005

MICHAEL BEST & FRIEDRICH LLP
100 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202

EXAMINER	
BELLAMY, TAMIKO D	

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/672,326	SIMS, DEWEY MCKINLEY	
	Examiner	Art Unit	
	Tamiko D. Bellamy	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/13/05*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *39-61 and 63-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *39-50,63, and 64* is/are allowed.

6)☒ Claim(s) *58,61 and 65* is/are rejected.

7)☒ Claim(s) *68 and 79* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 51-61, and 65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pauer (6,425,288) in view of Walkowski et al. (5,341,679).

Re claim 51, Pauer discloses in figs. 1 and 2, a wiper, a plurality of resister plates (e.g., sliding tracks. As depicted in fig. 2, Pauer discloses that the button (e.g. sliding contact 10) has a curved/arcuate surface that is configures to slide/glide along the resistor path. While, Pauer does not specifically disclose configuring the button to prevent a jouncing motion, Pauer, as depicted in fig. 2, discloses a button (10) that has a curved surface which in turn allows a smooth gliding motion of the button over the resistor traces (e.g., sliding tracks 7, 8). This teaching clearly infers and or suggests preventing a jouncing motion of the button as the button moves along the resistor path. Where there is reason to believe that a functional limitation asserted to be critical to establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, Applicant may be required to prove that the subject matter shown in the prior art does not possess the characteristic relied upon. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Hallman, 655 F.2d 212, 215, 210 USPQ 609, 611 (CCPA 1981); In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596-97 (CCPA 1980); In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-

34 (CCPA 1977); In re Ludtke, 441 F.2d 660, 664, 169 USPQ 563, 566 (CCPA 1971); In re Swinehart, 439 F.2d 210, 213, 169 USPQ 226, 229 (CCPA 1971). While Pauer does not specifically discloses a plurality of resistor traces coupled to the resistive plates, it is well known in the art that a potentiometer consist of a resistive plate including a series of resistors provided with taps at certain points and used to provide various potential differences from a single power source. As depicted in fig. 1 Walkowski et al. discloses a resistive plate having resistive traces coupled to the resistive plate (e.g., arcuate resistor array 18). Therefore, to modify Pauer by employing a button configured to prevent a jouncing motion, and resistor traces coupled to the resistive plate would have been obvious to one of ordinary skill in the art at the time of the invention since Walkowski et al. teaches a potentiometer having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Pauer and Walkowski et al. since Pauer states that his invention is applicable to a level transmitter in a fuel tank including a potentiometer and Walkowski et al is directed to a level sender including a potentiometer.

Re claim 52, Pauer discloses a contact button (e.g., contact rivet 96) that is circular; and a portion of the contact button (e.g., contact rivet 96) is defined along a longitudinal axis and a parallel to the longitudinal axis.

Re claims 53 and 54, as depicted in fig. 5A, Pauer discloses a contact button (e.g., contact rivet 96) that is circular. As depicted in fig. 4, a portion of the button is parallel to a longitudinal axis and is at least 3.0 mm.

Re claim 55, Pauer discloses two adjacent resistor traces (e.g. sliding tracks 7,8). Pauer does not specifically disclose that the increment between the adjacent resistor tracks is about 0.2mm. However actual distance between the tracks is a design

consideration clearly in the preview of one having ordinary skill in the art. Therefore, to employ Pauer on an increment between the adjacent resistor traces that are about 0.2mm would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use level transmitter in a fuel tank including a potentiometer and includes two adjacent resistor tracks.

Re claim 56, Pauer discloses in figs. 1 and 2, a wiper, resistor traces (e.g., sliding tracks 7, 8) coupled to resister plate, and a button coupled t a wiper. As depicted in fig. 2, Pauer discloses that the button (e.g. sliding contact 10) has a curved/arcuate surface that is configures to slide/glide along the resistor path. While, Pauer does not specifically disclose an edge portion tangent with the arcuate surface and the edge portion and the resistor path defining an edge gap, Pauer, as depicted in fig. 2, discloses a button (10) that has a curved surface which in contact with the resistor path (e.g., sliding tracks 7, 8). As depicted in fig. 2, Pauer discloses that a curved surface of the button (e.g., sliding contact 10) touches the surface of the resistor track (7) forming an edge portion tangent with the arcuate portion of the button (e.g., sliding contact 10). Pauer does not specifically disclose edge portion and the resistor path define a gap of no more than .10 mm. However, one having ordinary skill in the art knows that the curved surface can easily be shaped to include the claims specifications as a design choice. Therefore, to employ Pauer on a edge portion tangent with the arcuate surface and defining an edge gap of no more than .10 mm would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use level transmitter in a fuel tank including a potentiometer with a button having an arcuate surface.

Re claim 57, Pauer discloses a contact button (e.g., contact rivet 96) that is circular; and a portion of the contact button (e.g., contact rivet 96) is defined along a longitudinal axis and a parallel to the longitudinal axis.

Re claims 58-61, as depicted in fig. 4, Pauer discloses a button (e.g., sliding contact 10) that is circular. While, Pauer lacks the detail of first and second sidewall portions that are both oblique to the longitudinal axis, and an apex portion interconnecting the first and second sidewall portions. Changing the shape of the button is a design consideration clearly in the preview of one having ordinary skill in the art. Therefore, to employ Pauer on a button having first and second sidewall portions, and apex portion interconnecting the side wall portions would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a wiper coupled to a contact button.

Re to claims 65-68, Pauer discloses a level transmitter for a fuel tank that includes a float (5).

Response to Arguments

3. Applicant's arguments, see pages 9-11, filed 6/13/05, with respect to claims 39-50, 63 and 64 have been fully considered and are persuasive. The 35 U.S.C 103(a) of claims 39-50, 63, and 64 has been withdrawn.

4. Applicant's arguments with respect claim 51, the applicant argues that the Pauer button has a curved surface does not mean that the curved surface will prevent a jouncing motion as the button travels along the resistor path. The applicant acknowledges that the Pauer contact button (10, 11) has a **curved contact surface similar** to the surface (50) in Fig. 8; and argues that the

examiner improperly argues that the curved contact button surface "clearly infers and or suggest preventing a jouncing motion as the button moves along the resistor path". Re claim 51, Pauer discloses in figs. 1 and 2, a wiper, a plurality of resister plates (e.g., sliding tracks. As depicted in fig. 2, Pauer discloses that the button (e.g. sliding contact 10) has a curved/arcuate surface that is configures to slide/glide along the resistor path. While, Pauer does not specifically disclose **configuring the button to prevent a jouncing motion**, Pauer, as depicted in fig. 2, discloses a button (10) that has a curved surface which in turn allows a smooth gliding motion of the button over the resistor traces (e.g., sliding tracks 7, 8). This teaching clearly infers and or suggests preventing a jouncing motion of the button as the button moves along the resistor path. **Where there is reason to believe that a functional limitation asserted to be critical to establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, Applicant may be required to prove that the subject matter shown in the prior art does not possess the characteristic relied upon. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Hallman, 655 F.2d 212, 215, 210 USPQ 609, 611 (CCPA 1981); In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596-97 (CCPA 1980); In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977); In re Ludtke, 441 F.2d 660, 664, 169 USPQ 563, 566 (CCPA 1971); In re Swinehart, 439 F.2d 210, 213, 169 USPQ 226, 229 (CCPA 1971).** While Pauer does **not specifically discloses a plurality of resistor traces coupled to the resistive plates**, it is well known in the art that a potentiometer consist of a resistive plate including a series of resistors provided with taps at certain points and used to provide various potential differences from a single power source. As depicted in fig. 1 Walkowski et al discloses a resistive plate

having resistive traces coupled to the resistive plate (e.g., arcuate resistor array 18). Therefore, to modify Pauer by employing a button configured to prevent a jouncing motion, and resistor traces coupled to the resistive plate would have been obvious to one of ordinary skill in the art at the time of the invention since Walkowski et al. teaches a potentiometer having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Pauer and Walkowski et al since Pauer states that his invention is applicable to a level transmitter in a fuel tank including a potentiometer and Walkowski et al is directed to a level sender including a potentiometer.

Allowable Subject Matter

5. Claims 69 and 70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 39-50, 63, and 64 are allowed.

Re claim 39, the independent claim includes " a first and second ends being generally wedge-shaped to facilitate moving debris out of the path of the button as the button moves along the resistor path " in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. Walkowski et al. teaches a ground terminal (24) having slots which serve to clean wear debris from the from the wiper arms (80, 84) (Col. 10, lines 43-57). As depicted in figs. 1 and 2, the device of Walkowski et al. would remove wear debris from the inner wiper (84); however, the debris along the path of the resistive path (e.g., arcuate resistor array 16) would not be remove by the button shaped contact (e.g., contact rivet 92).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 7:30 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy
T.B.
August 8, 2005

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800